

2018 Current Fiscal Year Report: Advanced Scientific Computing Advisory Committee

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1. Department or Agency

Department of Energy

2. Fiscal Year

2018

3. Committee or Subcommittee

Advanced Scientific Computing Advisory Committee

3b. GSA Committee No.

5298

4. Is this New During Fiscal Year?

No

5. Current Charter

06/30/2017

6. Expected Renewal Date

06/30/2019

7. Expected Term Date

8a. Was Terminated During Fiscal Year?

No

8b. Specific Termination Authority

8c. Actual Term Date

9. Agency Recommendation for Next Fiscal Year

Continue

10a. Legislation Req to Terminate?

No

10b. Legislation Pending?

Not Applicable

11. Establishment Authority

Agency Authority

12. Specific Establishment Authority

Agency Authority

13. Effective Date

08/12/1999

14. Committee Type

Continuing

14c. Presidential?

No

15. Description of Committee

Scientific Technical Program Advisory Board

16a. Total Number of Reports

2

16b. Report Date Report Title

12/20/2017

Committee of Visitors Report

09/30/2018

Report from Subcommittee on Future Computing Technologies

Number of Committee Reports Listed: 2

17a. Open 3 17b. Closed 0 17c. Partially Closed 0 Other Activities 0 17d. Total 3

Meetings and Dates

Purpose	Start	End
The purpose of this meeting was to receive program briefings and provide advice on advanced scientific computing research and related fields.	12/20/2017	12/21/2017
The purpose of this meeting was to receive program briefings and provide advice on advanced scientific computing research and related fields.	04/17/2018	04/18/2018
The purpose of this meeting was to receive program briefings and provide advice on advanced scientific computing research and related fields.	09/17/2018	09/18/2018

Number of Committee Meetings Listed: 3

	Current FY	Next FY
18a(1). Personnel Pmts to Non-Federal Members	\$0.00	\$0.00
18a(2). Personnel Pmts to Federal Members	\$4,320.00	\$5,000.00
18a(3). Personnel Pmts to Federal Staff	\$26,700.00	\$27,000.00
18a(4). Personnel Pmts to Non-Member Consultants	\$0.00	\$0.00

18b(1). Travel and Per Diem to Non-Federal Members	\$45,500.00	\$50,000.00
18b(2). Travel and Per Diem to Federal Members	\$0.00	\$0.00
18b(3). Travel and Per Diem to Federal Staff	\$0.00	\$0.00
18b(4). Travel and Per Diem to Non-member Consultants	\$0.00	\$0.00
18c. Other(rents,user charges, graphics, printing, mail, etc.)	\$114,000.00	\$115,000.00
18d. Total	\$190,520.00	\$197,000.00
19. Federal Staff Support Years (FTE)	0.20	0.20

20a. How does the Committee accomplish its purpose?

ASCAC is charged by the Director for Science (SC), to: periodically review elements of the Advanced Scientific Computing Research program and provide recommendations based thereon; provide advice on long range plans, priorities, and strategies to address more effectively the scientific aspects of advanced scientific computing including the relationship to other scientific disciplines; provide advice on appropriate levels of funding to develop those plans, priorities, and strategies; and provide advice on national policy and scientific issues related to advanced scientific computing that are of concern to the Department of Energy as requested by the Secretary or the Under Secretary for Science. The committee responds to charges, at the direction of the Director of the Office of Science, that are then discussed at public meetings.

20b. How does the Committee balance its membership?

Committee members are chosen to ensure an appropriately balanced representation of various points of view and functions of interested stakeholders and professionals as required by the Federal Advisory Committee Act, as amended, and implementing regulations. Particular attention is given to obtaining diversity including interests, experiences, points of view, and geography as required by the Federal Advisory Committee Act (Public Law 92-463), and implementing regulations.

20c. How frequent and relevant are the Committee Meetings?

The ASCAC meets, on average, three times a year and reports on a continuing basis to the Under Secretary for Science. The ASCAC also responds to direct charges from the Director of the Office of Science in the form of formal reports.

20d. Why can't the advice or information this committee provides be obtained elsewhere?

The advice and recommendations provided by ASCAC on computational science and advanced computing and network facilities in support of all departmental programs is essential to national research needs and priorities. The requisite knowledge and experience is not available within the DOE or its existing committees, and cannot be

provided by a single contractor.

20e. Why is it necessary to close and/or partially closed committee meetings?

Meetings are always open to the general public. ASCAC does not have any closed meetings.

21. Remarks

The committee costs for the ASCAC were slightly below planned due to the fact that the committee held three face-to-face meetings as planned. More frequent use of virtual attendance by members has helped to defray increasing travel costs.

Designated Federal Officer

Christine Chalk Designated Federal Officer

Committee Members	Start	End	Occupation	Member Designation
Bergman, Keren	10/01/2015	09/30/2021	Columbia University	Special Government Employee (SGE) Member
Berzins, Martin	09/30/2014	09/30/2020	University of Utah	Representative Member
Cerf, Vinton	02/21/2012	09/30/2020	Google, Inc.	Special Government Employee (SGE) Member
Chapman, Barbara	06/13/2011	09/30/2019	Professor, Institute for Advanced Computational Sciences (IACS), Stony Brook University	Special Government Employee (SGE) Member
Chen, Jacqueline	10/02/2008	09/30/2021	Sandia National Laboratories	Special Government Employee (SGE) Member
Crivelli, Silvia	09/30/2014	09/30/2020	University of California, Davis and Lawrence Berkeley National Laboratory	Special Government Employee (SGE) Member
Dolbow, John	09/30/2014	09/30/2020	Duke University	Special Government Employee (SGE) Member
Dongarra, Jack	02/12/2010	09/30/2019	University of Tennessee	Special Government Employee (SGE) Member
Dunning, Thom	10/01/2015	09/30/2021	Co-Director, Northwest Institute for Advanced Computing, University of Washington	Special Government Employee (SGE) Member
Germann, Timothy	10/01/2016	09/30/2019	Los Alamos National Laboratory	Special Government Employee (SGE) Member
Gregurick, Susan	10/01/2015	09/30/2021	Director, Division of Biomedical Technology, Bioinformatics, and Computational Biology, National Institute of General Medical Sciences, National Institutes of Health	Regular Government Employee (RGE) Member
Hey, Anthony	10/02/2008	09/30/2020	Chief Data Scientist, Science and Technology Facilities Council, UK	Representative Member
Huntoon, Gwendolyn	11/17/2011	09/30/2019	KINBER - Keystone Initiative for Network Based Education and Research	Special Government Employee (SGE) Member

Lethin, Richard	10/01/2016 09/30/2019 Reservoir Labs, Inc.	Special Government Employee (SGE) Member
Levermore, David	10/01/2015 09/30/2021 Professor, Department of Mathematics, University of Maryland	Special Government Employee (SGE) Member
Matsuoka, Satoshi	10/01/2016 09/30/2019 Tokyo Institute of Technology	Representative Member
Negele, John	10/02/2008 09/30/2021 Massachusetts Inst. of Technology	Special Government Employee (SGE) Member
Petzold, Linda	05/01/2009 09/30/2021 Univ. of California/Santa Barbara	Special Government Employee (SGE) Member
Reed, Daniel	09/30/2014 09/30/2019 University of Utah	Special Government Employee (SGE) Member
Sarkar, Vivek	05/01/2009 09/30/2019 Georgia Tech School of Computing	Special Government Employee (SGE) Member
Svore, Krysta	10/01/2016 09/30/2019 Microsoft Research	Special Government Employee (SGE) Member
Williams, Dean	11/17/2011 09/30/2021 Lawrence Livermore National Laboratory	Special Government Employee (SGE) Member

Number of Committee Members Listed: 22

Narrative Description

ASCAC provides valuable, independent advice to DOE on a variety of complex scientific and technical issues related to its Advanced Scientific Computing Research Program. Recommendations include advice on long-range plans, priorities and strategies to address more effectively the scientific aspects of advanced scientific computing including the relationship to other scientific disciplines.

What are the most significant program outcomes associated with this committee?

Checked if Applies

Improvements to health or safety	<input type="checkbox"/>
Trust in government	<input checked="" type="checkbox"/>
Major policy changes	<input type="checkbox"/>
Advance in scientific research	<input checked="" type="checkbox"/>
Effective grant making	<input type="checkbox"/>
Improved service delivery	<input type="checkbox"/>
Increased customer satisfaction	<input type="checkbox"/>
Implementation of laws or regulatory requirements	<input type="checkbox"/>
Other	<input type="checkbox"/>

Outcome Comments

Trust in Government: Trust in government is advanced by the completely open, public nature of all proceedings, committee meetings and reports; through provision for public comment following all committee meetings; and through a comprehensive and informative website. Advance in scientific research: Advance in scientific research is facilitated and supported by actions stated in the committee's mission statement. ASCAC is influential in the community. ASCAC reports highlight state-of-the-art research in related fields and encourage further contributions and progress.

What are the cost savings associated with this committee?

Checked if Applies

None	<input type="checkbox"/>
Unable to Determine	<input checked="" type="checkbox"/>
Under \$100,000	<input type="checkbox"/>
\$100,000 - \$500,000	<input type="checkbox"/>
\$500,001 - \$1,000,000	<input type="checkbox"/>
\$1,000,001 - \$5,000,000	<input type="checkbox"/>
\$5,000,001 - \$10,000,000	<input type="checkbox"/>
Over \$10,000,000	<input type="checkbox"/>
Cost Savings Other	<input type="checkbox"/>

Cost Savings Comments

NA

What is the approximate Number of recommendations produced by this committee for the life of the committee?

72

Number of Recommendations Comments

Since the formation of ASCAC, in 1999, the committee has issued 37 reports and made over 122 recommendations, with 72 actionable recommendations. In FY 2018, the ASCAC issued a report from the Committee of Visitors, which made four specific recommendations that span ASCR activities. This and is publicly available on the ASCAC website. In addition, ASCAC had three active charges in FY 2018: one on-going charge to review the Office of Scientific and Technical Information (OSTI); one for form a Committee of visitors to review the research supported by the ASCR program, and one to identify the opportunities and challenges of future computing technologies.

What is the approximate Percentage of these recommendations that have been or will be Fully implemented by the agency?

60%

% of Recommendations Fully Implemented Comments

Implementation of recent recommendations is an on-going process. However, the program has implemented many of the older recommendations including the establishment of leadership computing facilities, establishment of exascale research effort as a DOE project, changes within OSTI and numerous program management recommendations from COV subcommittees.

What is the approximate Percentage of these recommendations that have been or will be Partially implemented by the agency?

85%

% of Recommendations Partially Implemented Comments

The nature of many recommendations require that implemented be seen as a partial response but on-going. For example, the recent exascale and OSTI recommendations will be considered on-going for many years. Some historical recommendations have been overtaken by events before they could be fully implemented and some recommendations are pending congressional action.

Does the agency provide the committee with feedback regarding actions taken to implement recommendations or advice offered?

Yes ☒ No ☐ Not Applicable ☐

Agency Feedback Comments

A program response to the FY18 Committee of Visitors recommendations was posted on the ASCAC website within 30 days of receiving the final COV report. The ASCAC is briefed on status of facilities and exascale activities at least once a year. The Director of the Office of Science, a member of Agency senior management, provides feedback regularly to the ASCAC - either directly to the Committee, to its Chair, or through the Associate Director for Advanced Scientific Computing Research, who attends all ASCAC and related meetings.

What other actions has the agency taken as a result of the committee's advice or recommendation?

Reorganized Priorities

Checked if Applies



Reallocated resources	<input type="checkbox"/>
Issued new regulation	<input type="checkbox"/>
Proposed legislation	<input type="checkbox"/>
Approved grants or other payments	<input type="checkbox"/>
Other	<input checked="" type="checkbox"/>

Action Comments

In FY 2018, the ASCAC made specific recommendations with regard to research priorities and program management practices that are currently being folded into Office of Science and Department decisions, particularly with regard to investments in future computing technologies. Many recommendations from past COVs are currently or are being implemented in the Office of Science PAMS system.

Is the Committee engaged in the review of applications for grants?

No

Grant Review Comments

The Committee (ASCAC) does not review or award grant applications.

How is access provided to the information for the Committee's documentation?

Checked if Applies

Contact DFO	<input checked="" type="checkbox"/>
Online Agency Web Site	<input checked="" type="checkbox"/>
Online Committee Web Site	<input checked="" type="checkbox"/>
Online GSA FACA Web Site	<input checked="" type="checkbox"/>
Publications	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Access Comments

N/A